



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Art Unit : 1647  
Examiner : Robert S. Landsman  
Serial No. : 09/481,990  
Filed : January 11, 2000  
Inventors : Florian Lesage

: Eric Guillemare  
: Michel Fink  
: Fabrice Duprat  
: Michel Lazdunski  
: Georges Romey  
: Jacques Barhanin  
Title : ISOLATED TWIK-1 POTASSIUM  
: CHANNEL PROTEINS



PATENT & TRADEMARK OFFICE

Docket No.: 1201-DIV-00

Confirmation No.: 6424

Dated: February 28, 2003

**AMENDMENT**

Commissioner for Patents  
Washington, DC 20231

Sir:

In response to an Official Action dated August 28, 2002, please amend the above-identified application as follows:

**In the Title** (Marked-Up Version)

Please amend the title to read:

~~NEW FAMILY OF MAMMALIAN POTASSIUM CHANNELS, THEIR CLONING AND~~  
~~THEIR USE, ESPECIALLY FOR THE SCREENING OF DRUGS~~ ISOLATED TWIK-1  
POTASSIUM CHANNEL PROTEINS

#20C  
JB  
3/24/03

**In the Abstract** (Marked-Up Version)

Please substitute the following for the abstract in this case:

~~NEW FAMILY OF MAMMALIAN POTASSIUM CHANNELS, THEIR CLONING AND  
THEIR USE, ESPECIALLY FOR THE SCREENING OF DRUGS~~

**Abstract Of The Disclosure**

This invention relates to the cloning of a member of a new potassium channel named TWIK-1. More specifically, it relates to an isolated and purified nucleic acid molecule coding for a protein constituting a potassium channel exhibiting the properties and structure of the TWIK-1 type channel, as well as the protein coded by this nucleic acid molecule. The invention also relates to the use of this nucleic acid molecule to transform cells, and the use of these cells expressing the potassium channels exhibiting the properties and structure of the TWIK-1 type channel for the screening of drugs.